

CLAIMS

1. Method of dewatering sludge, comprising

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- addition of a basic agent to sludge having a pH equal to or less than 8,

10 - addition to the sludge of at least one flocculating organic component,

- by the addition of the above mentioned basic agent, an increase in pH of the sludge to a value less than a pH as from which degradation of the said at least one organic  
15 component takes place,

- flocculation of the sludge, and

20 - separation of the flocculated sludge between dewatered sludge and a liquid phase,

characterised in that the above mentioned basic agent is a calcaro-magnesian compound complying with the formula

25 
$$x\text{CaCO}_3 \cdot (1-x) [\text{yMg}(\text{OH})_2 + (1-\text{y})\text{MgO}],$$

in which

x and y are molar fractions

30  $0.45 \leq x \leq 0.75$ , and

$0 \leq y \leq 1$ ,

and in that the treated sludge has, until after the said separation, the said value lower than a pH as from which

degradation of the said at least one organic component takes place.

2. Method according to claim 1, characterised in that  
5 the calcaro-magnesian compound is a half-burnt dolomite, comprising an MgO component, possibly partially or totally in the form of  $\text{Mg}(\text{OH})_2$ .

3. Method according to one or other of claims 1 and 2,  
10 characterised in that it comprises the said increase in pH to a value of no more than 10.

4. Method according to one of claims 1 to 3,  
characterised in that the addition of the calcaro-  
15 magnesian compound takes place prior to, simultaneously with and/or after the addition of the said at least one flocculating organic compound.

5. Method according to claim 4, characterised in that  
20 the addition of the calcaro-magnesian compound takes place before the above mentioned separation step.

6. Method according to any one of claims 1 to 5,  
characterised in that it comprises, after the said  
25 separation, an incineration of the dewatered sludge.

7. Method according to any one of claims 1 to 6,  
characterised in that, in the case of acid sludge, it  
also comprises a prior neutralisation of this acid sludge  
30 so that it has a pH of at least 6.

8. Method according to any one of claims 2 to 7,  
characterised in that it the half-burnt dolomite issues  
from a burning of double calcium and magnesium carbonate  
35 under conditions such that it has a CaO content of less

than 5% by weight and an  $\text{MgCO}_3$  content of less than 10% by weight.

9. Use of a calcaro-magnesian compound complying with  
5 the formula  $x\text{CaCO}_3 \cdot (1-x)[y\text{Mg}(\text{OH})_2 + (1-y)\text{MgO}]$ , in which  $x$   
and  $y$  are molar fractions,  $0.45 \leq x \leq 0.75$ , and  $0 \leq y$   
 $\leq 1$ , for the treatment and dewatering of sludge having a  
pH equal to or less than 8.

10 10. Dewatered sludge, comprising a calcaro-magnesian  
compound content complying with the formula  
 $x\text{CaCO}_3 \cdot (1-x)[y\text{Mg}(\text{OH})_2 + (1-y)\text{MgO}]$ , in which  $x$  and  $y$  are  
molar fractions,  $0.45 \leq x \leq 0.75$ , and  $0 \leq y \leq 1$ , and  
having a pH greater than 8 and equal to or less than 10.

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11. Dewatered sludge according to claim 10, comprising  
at least 15% by weight of the calcaro-magnesian compound  
with respect to the dry matter of the sludge before  
dewatering.